Frank L. O'Bannon
Governor

Gregory A. Wilson, M.D.
State Health Commissioner

Indiana State Department of Health

An Equal Opportunity Employer

DATE: May 14, 2002

TO: Local Health Departments

THRU: Howard Cundiff, P.E., Director
Consumer Protection

FROM: Alan M. Dunn, Supervisor
Residential Onsite Sewage Systems

SUBJECT: Experimental On-site Sewage Systems

This is to clarify the requirements of the Indiana State Department of Health (department) regarding the use and approval of experimental technologies for on-site sewage systems in Indiana. The only experimental on-site technologies that the department has delegated authority for plan review and approval to local health departments are trench chamber systems and gravelless systems consisting of 8 or 10 inch corrugated tubing wrapped in filter fabric. (see department memos of 2/24/89, 3/31/95, 11/27/96, 12/4/96, 4/29/97, 5/26/00, and 9/7/00). Authority for plan review and approval for other experimental technologies, including secondary treatment devices and subsurface drip systems, has not been delegated to local health departments. Only the department has authority for plan review and approval for on-site technologies that have not been delegated to local health departments.

- Rule 410 IAC 6-8.1-31 (g) states that the commissioner may approve the installation of experimental equipment, facilities, or pollution control devices for which extensive experience or records of use have not been developed in Indiana. This section of the rule also states that the applicant must submit evidence of sufficient clarity and conclusiveness to convince the commissioner that the proposal has a reasonable and substantial probability of satisfactory operation without failure.
- Rule 410 IAC 6-8.1-31 (f) states that without the express written approval of the commissioner, local boards of health may not approve the use of any alternative residential sewage system which is not described in the rule. Under this provision of the rule, local health departments may not approve the use of any alternative or experimental residential sewage system without the sanction of the commissioner.
- Rule 410 IAC 6-8.1-33 (a) allows local health departments to use best judgement with respect to "system design and installation" in the case of repairs for residential sewage system failure.

The relationship of Section 31 to Section 33 must be properly interpreted by local health departments. Section 31 (f) clearly requires the written approval of the commissioner for any local health department to approve an alternative system (including experimental) relative to those systems regulated in 410 IAC 6-8.1. Section 33 (a) permits local boards of health to use best judgment where alterations of a system become necessary due to system defect, failure, or malfunction.

Section 33 (a) has been misunderstood and occasionally misapplied by some local health departments. The authority of a local board of health to use its best judgement under this section applies only to systems described in 410 IAC 6-8.1 and to alternative or experimental technologies approved by the commissioner [Section 31 (g)]. Section 33 (a) does not permit the approval of experimental or alternative systems by local health departments for the repair or replacement of systems in failure unless written approval of the commissioner has been obtained or plan review and permit issuance for the experimental technology has been delegated to the local health department.

Therefore, when a residential on-site system requires repair or replacement due to system failure, local health departments are restricted to on-site technologies described in 410 IAC 6-8.1 and on-site technologies for which the commissioner has delegated plan review and approval authority. Under the provision of 410 IAC 6-8.1-33 (a) for the use of best judgement, local health departments are limited to matters of "system design and installation." Best judgement regarding system design and installation includes judicious deviation from:

- Requirements for the depth of the infiltrative surface to a restrictive layer or seasonal high water table;
- Requirements for soil absorption field (SAF) sizing (including trench separation distance and total trench length, and sand mound aggregate bed width and basal area size);
- Requirements for separation distances, except for required separation distances from water supplies;
- Requirements for dispersal area;
- Restrictions on the location of the SAF in floodplains; and
- Restrictions on the location of the SAF in fill soils.

In the application of best judgement in system design and installation, local heath departments are encouraged to consult with department staff regarding sound decisions in this area.

Typically, an on-site sewage system requiring a replacement SAF has a much greater chance of successful operation and a longer potential life with a secondary treatment device. Therefore, the department will expedite projects having replacement SAFs that use a secondary treatment device (experimental technology). In this regard, we require:

- A properly designed experimental technology on-site sewage system (ET OSS), with drawings drawn to scale, including a SAF that is full sized, reduced in size according to department requirements, or as large as possible using 'optimum' design and best judgement;
- Notification to the owner of the use of experimental technology in the proposed ET OSS and the requirement for operation and maintenance (O&M);
- A mechanism for ongoing O&M for the ET OSS;
- A commitment of the manufacturer of the experimental technology to work with the department toward having their product(s) approved for general use in Indiana;
- Plan review and approval by the department with involvement of the local health department; and
- A local health department permit.

Thank you for your compliance with the provisions of this memorandum. If you have any questions, please feel free to call my on-site staff or me at 317.233.7177.

cc: On-site sewage staff